

STAR PROGRAM: SATELLITE TECHNOLOGY FOR THE ASIA-PACIFIC REGION



The Satellite Technology for the Asia-Pacific Region (STAR) program is an international initiative to develop small satellites in collaboration with engineers and researchers from the Asia-Pacific region.

OBJECTIVES

STAR Program aims to:

- Provide opportunities to build capacity for Space Agency staff in the Asia-Pacific region in satellite development
- Increase the number of earth observation satellites that can be used in the Asia-Pacific Region to satisfy the future needs of the region

BACKGROUND

APRSAF satellite cooperation was proposed by JAXA at APRSAF-14 in 2007. It was agreed at APRSAF-15 in 2008 that the project be named STAR, and its office be located on the JAXA Sagami-hara Campus. In April 2009, the project started in earnest.

ACTIVITIES

STAR Program participants from Asia-Pacific countries are jointly implementing their missions; one of which is to carry out a needs survey and conceptual system study for earth observation satellites "EO-STAR", 300kg to 500kg. The other is to develop an actual satellite named "Micro-STAR", approximately 50kg. Details of the missions are explained below:

• EO-STAR SYSTEM STUDY

The STAR Program carries out a conceptual study, which will be based on the small scientific satellite standard bus.

• MICRO-STAR PILOT PROJECT MAJOR REQUIREMENTS:

- Technology demonstration for EO-STAR
- The STAR international project team performs the planning, design, assembly, integration and test of Micro-STAR with the assistance of JAXA.
- Capacity building: On the Job Training style
- Launch as a secondary payload

PARTICIPANTS' CONTRIBUTIONS

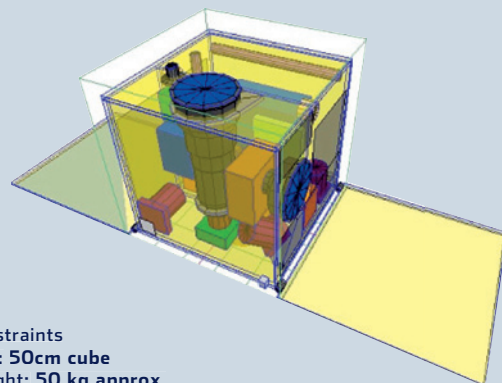
STAR Program participating organizations are expected to:

- dispatch engineers to the program
- provide launch opportunities for Micro-STAR as a secondary payload
- provide ground station resources to operate Micro-STAR
- provide the necessary on-board and ground instruments

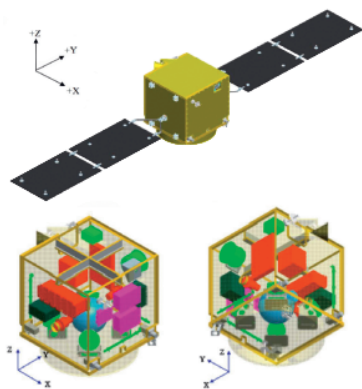
STAR PROGRAM PARTICIPANTS

India	Indonesia	Japan	Korea	Malaysia	Thailand	Viet Nam
ISRO	LAPAN	JAXA	KARI	ANGKASA	GISTDA	VAST/STI

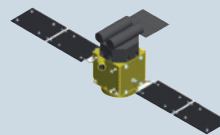
MICRO-STAR



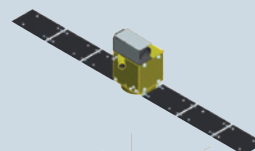
Constraints
Size: 50cm cube
Weight: 50 kg approx.



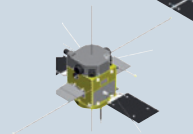
Flexible Standard Bus for various small satellites



Type-A
Sun Synchronous Orbit
3 axis stabilized



Type-B
Low Earth Orbit
3 axis stabilized



Type-C
Ellipsoidal Orbit
Spin stabilized



Earth Observation Satellite